

Unconfirmed Meeting Minutes: Meeting of the IEEE P802.3dg 100 Mb/s Long-Reach
Single Pair Ethernet Task Force

Wednesday March 15, 2023
Hybrid Plenary Meeting

Prepared by Bob Voss

IEEE 802.3dg 100 Mb/s Long-Reach Single Pair Ethernet Task Force meeting was called to order at **1:00PM EDT**, Wednesday, March 15, 2023, by George Zimmerman, Chair of the IEEE 802.3dg Task Force.

The meeting was held in hybrid format, electronically via WebEx.

Attendance is listed in Appendix A

Any presentations referenced in these minutes are located on the [Task Force Meeting Materials site](#).

Bob Voss was appointed as recording secretary for the meeting. Mr. Voss has agreed to serve as recording secretary on a permanent basis.

This being a hybrid meeting, the Chair asked that in-room participants introduce themselves. Also, the Chair asked that remote participants whose affiliation is not shown in their Webex post their affiliation in the chat window. The Chair announced that hybrid meetings have been ruled as electronic meetings by Mr. Law, the 802.3 WG Chair. As such, only 802.3 voters may vote. There was no objection.

Mr. Zimmerman displayed and proceeded to review the agenda at https://www.ieee802.org/3/dg/public/May_2022/agenda_3dg_01a_230315.pdf

The agenda was approved at **1:05 PM EDT** by unanimous consent.

The Chair asked if there is any objection to approving the prior meeting minutes from the December 14, 2022, ad hoc meeting, and January 18, 2023, interim meeting, as posted. The Chair also asked if anyone wished to review the meeting minutes now. None heard. Minutes were approved by unanimous consent.

Members of the Press, At **1:08 PM EDT** the chair asked for any press members to identify themselves. None heard.

At **1:09 PM EDT**, Mr. Zimmerman resumed review of the agenda deck, including the following items – a review of the participation policy, a review of the IEEE copyright policy, a review of the IEEE policy on dominance, and a review of the IEEE Standards process. There were no questions.

At 1:15 PM EDT, Attendance, Mr. Zimmerman advised the group that the attendance would be taken from Webex and IMAT. Mr. Zimmerman urged members to enter their attendance into IMAT. Mr. Zimmerman further advised that the need for corrections to IMAT records is strongly discouraged – please do not forget to sign into IMAT.

IEEE Patent Policy, Mr. Zimmerman showed the patent slides at **1:18 PM EDT**. The call for patents was made at **1:21 PM EDT**. None responded.

The slides on SA Copyright Policy as well as Code of Ethics and Conduct were shown and presented at **1:22 PM EDT**. The chair reminded participants that they agree to comply with IEEE Code of Ethics, all applicable laws and with all IEEE policies. Individual process, fair & equitable consideration, slides shown.

Presentations and Discussion:

At **1:27 PM EDT**, the Chair moved on to presentations.

At **1:28 PM EDT, PSANEXT, PSAACR-F and RL Proposal** – *Steffen Graber, Pepperl+Fuchs*,

https://www.ieee802.org/3/dg/public/May_2022/graber_3dg_01_03152023.pdf

- Presentation made by presenter
- Chair asked for questions to the presenter, none heard

At **1:41 PM EDT, Insertion Loss Proposal** – *Steffen Graber, Pepperl+Fuchs*,

https://www.ieee802.org/3/dg/public/May_2022/graber_3dg_02_03152023.pdf

- Presentation made by presenter
- Questions asked and answered

At **1:57 PM EDT, Getting to a less demanding Link Segment (rev a)** – *Steffen Graber, Pepperl+Fuchs*

https://www.ieee802.org/3/dg/public/May_2022/graber_3dg_03a_03152023.pdf

- Presentation made by presenter
- Questions asked and answered

At **2:17 PM EDT, SNR Margin Analysis with Updated Link Parameters** – *Tingting Zhang, Yan Zhuang, Tong Mu, Huawei Technologies*

https://www.ieee802.org/3/dg/public/May_2022/Tingting_3dg_01a_15032023.pdf

- Presentation made by presenter

- Questions asked and answered

At **2:31 PM EDT, PHY Enhancement for 100BASE-T1L**– *Tong Mu, Tingting Zhang, Yan Zhuang, Huawei Technologies*

https://www.ieee802.org/3/dg/public/May_2022/zimmerman_3dg_01a_03_15_2023.pdf

- Presentation made by presenter
- Questions asked and answered

At **2:55 PM EDT** Mr. Zimmerman transferred the chair to Mr. Carlson prior to beginning his presentation.

At **2:56 PM EDT, Preliminary PHY Analysis on Updated Link Segment Specifications in graber_3dg_xx_03152023** – *George Zimmerman, CME Consulting*

https://www.ieee802.org/3/dg/public/May_2022/zimmerman_3dg_01a_03_15_2023.pdf

- Presentation made by presenter
- No questions posed

At **3:05 PM EDT** Mr. Carlson transferred the chair to back to Mr. Zimmerman.

Presentations and Discussion concluded at **3:06 PM EDT**

Afternoon Break

The Chair resumed after Afternoon Break with a call for general discussion.

Motions

Motion #1 – Move to adopt the insertion loss limit on slide 4 of graber_3dg_02_03152023.pdf

- M: S. Graber
- S: G. Huszak
- (Technical $\geq 75\%$)
- Motion passes by unanimous consent

Motion #2 – Move to adopt the return loss limit on slide 13 of graber_3dg_02_03152023.pdf

- M: S. Graber
- S: C. DiMinico
- (Technical $\geq 75\%$)
- Motion passes by unanimous consent

Motion #3 – Move to adopt the PSANEXT and PSAACR-F loss limits on slide 10 (5dB relaxed limits) of graber_3dg_03a_03152023.pdf

- **M: S. Graber**
- **S: B. Voss**
- **(Technical $\geq 75\%$)**
- **Roll Call Vote of 802.3 voters called (list of voter responses needed from GZ)**
- **Y: 22 (note – one additional voter was later confirmed to not be a current 802.3 voter)**
- **N: 1**
- **A: 4**
- **Motion passes**

Chair called for additional motions from the floor. None heard

Future Meetings

- The next task force meeting will be an ad hoc held on WEDNESDAY March 29, 2023
 - 7am to 9am PDT
 - No registration required
 - See <http://www.ieee802.org/3/calendar.html> for information
- Presentation requests to the Chair no later than Friday morning Pacific Time (Thursday AoE) prior to the meeting
 - Actual presentation is due on the Monday AoE prior to the meeting (latest)
- Mr. Zimmerman pointed out that ad hoc meetings will be called when requests for presentation time are received.

Mr. Carlson pointed to **Discussion of Cost** resource, located under “Other Information” on IEEE 802.3 home page (www.ieee.org/3/).

Mr. Larsen asked about considering proposed TCL, ELTCL, and Delay parameters made in https://www.ieee802.org/3/dg/public/May_2022/Larsen_3dg_11_09_2022. Discussion of the proposal by task force members occurred. There was no support for this suggestion. The chair suggested that Mr. Larsen bring a contribution to a future task force meeting.

Having exhausted the agenda, the meeting adjourned by Mr. Zimmerman at 4:26 PM EDT.

**Appendix A: Attendees at IEEE P802.3dg 100 Mb/s Long-Reach
Single-Pair Ethernet Task Force**

March 15, 2023

Last Name	First Name	Affiliation	Webex	IMAT	In-Room
Abbas	Alwishah	Molex	x	X	X
Tim	Baggett	Microchip		X	X
Francois	Beauregard	Belden	x		X
David	Brandt	Rockwell Automation	x	X	
Theo	Brillhart	Fluke		X	X
Steve	Carlson	HSD, Bosch, Ethernovia	x	X	X
Clark	Carty	Cisco		X	X
Christopher	DiMinico	PHY-SI/MC Communications/SenTekse	x		X
Thuyen	Dinh	Pulse Electronics	x	X	X
Peter	Fischer	BKS Kabel-Service AG	x	X	
Matthias	Fritsche	HARTING	x	X	
Steffen	Graber	Pepperl+Fuchs	x	X	
Bernd	Hormmeyer	Phoenix Contact	x	X	
Gergely	Huszak	Kone		X	X
Chad	Jones	Cisco	x	X	X
Peter	Jones	Cisco	x	X	X
Wojciech	Koczwarra	Rockwell Automation		X	X
Hans	Lackner	QoSCom GmbH	x	X	
Wayne	Larsen	CommScope	x	X	
Kent	Lennartsson	Kvaser AB		X	X
Valerie	Maguire	Copperopolis			X
Tong	Mu	Huawei	x	X	
Harald	Mueller	Endress+Hauser	x	X	
Thomas	Mueller	Rosenberger	x	X	
Brian	Murray	Analog Devices	x	X	
Yoshihiro	Niihara	Fujiura Ltd	x		
Harsh	Patel	Amphenol CS	x		
Michael	Paul	Analog Devices		X	X
Jason	Potterf	Cisco	x	X	X
Victor	Renteria	TRP	x	X	
Stephan	Schreiner	Rosenberger	x	X	
Hossein	Sedarat	Ethernovia	x	X	
Jason	Sisk	UNH-IOL	x	X	
Heiko	Strohmeier	Bosch	x	X	
Mehmet	Tazebay	Broadcom	x	X	
Ronald	Tellas	Belden	x	X	X
Geoff	Thompson	GraCaSI/Independent		X	X
Sterling	Vaden	Vaden Enterprises/TE		X	X
Paul	Vanderlaan	UL LLC		X	X
Bob	Voss	Panduit	x	X	X

James	Withey	Fluke	x	X	X
Dayin	Xu	Rockwell Automation	x	X	
Tingting	Zhang	Huawei	x	X	
Yan	Zhuang	Huawei	x	X	X
George	Zimmerman	CME Consulting/APL Group, Cisco, CommScope, Marvell, ON Semiconductor, SenTekSe	x	X	X

Appendix B: Roll Call of 802.3 voters for Motion #3

(note – one individual who was not a current voter was inadvertently called in the roll, his indication is shown here, but not counted in the total)

Motion:	
Requestor:	
Threshold	75%
Yes	22
No	1
Abstain	4
Approval ratio	95.8%
Pref Name	Vote
Abbott, John	
Akin, Sami	
Araki, Nobuyasu	
Aronson, Joseph	
Au, Edward	
Baggett, Tim	y
Beaudoin, Denis	
Ben-Artzi, Liav	
Bernier, Eric	
Beruto, Piergiorgio	
Bois, Karl	
Borda, Jamila Josip	
Bordogna, Mark	
Boyer, Rich	
Brandt, David	y
Brillhart, Theodore	y
Brooks, Paul	
Brown, Blake	
Brown, Matthew	
Bruckman, Leon	
Brychta, Michal	
Calvin, John	
Carlson, Steve	y
Carty, Clark	y
Castro, Jose	
Chang, Frank	
Chang, Xin	
Chaplin, Clint	
Choudhury, Golam	
Cuesta, Emilio	
D'Ambrosia, John	
Dawe, Piers	
Dawson, Fred	
De Koos, Andras	
Deandrea, John	
DiBiaso, Eric	

Diminico, Chris	y
Dittmann, Markus	
Donahue, Curtis	
Donthu, Suresh	
Dube, Kathryn	
Dudek, Mike	
Dumais, Patrick	
Effenberger, Frank	
Estes, David	
Ewen, John	
Ferretti, Vincent	
Feyh, German	
Fischer, Peter	n
Fritsche, Matthias	a
Gao, Xiangrong	
Geng, Lemon	
Ghiasi, Ali	
Gilb, James P. K.	
Godfrey, Tim	
Gomez, Chisato	
Gore, Brandon	
Gorshe, Steven	
Goto, Hideki	
Graba, James	
Graber, Steffen	y
Grow, Robert	
Gubow, Martin	
Gustlin, Mark	
Hajduczenia, Marek	
Harshbarger, Douglas	
Hayashi, Takehiro	
He, Xiang	
Healey, Adam	
Heck, Howard	
Hess, David	
Hirase, Hidenari	
Huang, Kechao	
Huang, Qinhui	
Huber, Thomas	
Huszk, Gergely	y
Hyakutake, Yasuhiro	
Ingham, Jonathan	
Ishibe, Kazuhiko	
Isono, Hideki	
Issenhuth, Tom	
Jackson, Kenneth	

Jiang, Chendi	
Jimenez, Andrew	
Johnson, John	
Jones, Chad	y
Jones, Peter	y
Kabra, Lokesh	
Kadry, Haysam	
Kagami, Manabu	
Kareti, Upen	
Kawahara, Keisuke	
Kawatsu, Yasuaki	
Kikuta, Tomohiro	
Kim, Kihong/Joshua	
Kim, Yong	
Kimber, Mark	
Klempa, Michael	
Kobayashi, Shigeru	
Kochuparambil, Elizabeth	
Kocsis, Sam	
Koeppendoerfer, Erwin	
Kondo, Taiji	
Kubota, Masaki	
Kurashima, Kazuyoshi	
Lackner, Hans	y
Lambert, Angela	
Larsen, Wayne	y
Laubach, Mark	
Law, David	
Le Cheminant, Greg	
Lennartsson, Kent	y*
Lewis, David	
Lewis, Jon	
Li, Mike-Peng	
Li, Pei-Rong	
Lieder, Eyal	
Lim, Jane	
Lin, Youxi	
Lingle, Robert	
Little, Terrance	
Liu, Cathy	
Liu, Hai-Feng	
Lu, Yuchun	
Lusted, Kent	
Mahlich, Matthias	
Maki, Jeffery	
Malicoat, David	
Maniloff, Eric	

Mark, Simon	
Marks, Roger	
Marques, Flavio	
Marris, Arthur	
Martino, Kjersti	
Matheus, Kirsten	
Mcclellan, Brett	
McMillan, Larry	
Mellitz, Richard	
Mi, Guangcan	
Mody, Apurva	
Moorwood, Andy	
Mueller, Harald	y
Mueller, Thomas	
Muller, Shimon	
Murty, Ramana	
Nakagawa, Hideki	
Nakamoto, Edward	
Nering, Raymond	
Neulinger, Christian	
New, Anthony	
Nicholl, Gary	
Nicholl, Shawn	
Niihara, Yoshihiro	
Nikolich, Paul	
Nowell, Mark	
Ofelt, David	
Ogura, Ichiro	
Oi, Shigehiro	
Omori, Kumi	
Opsasnick, Eugene	
Palkert, Tom	
Pandey, Sujan	
Pardo, Carlos	
Park, Chul Soo	
Parkholm, Ulf	
Parsons, Earl	
Parsons, Glenn	
Peng, Semmy	
Pepper, Gerald	
Perez De Aranda Alonso, Ruben	
Piehler, David	
Pimpinella, Rick	
Pitwon, Richard	
Potterf, Jason	y
Powell, Clint	

Powell, William	
Preis, Roland	
Quan, Yu	
Rabinovich, Rick	
Rahn, Jeffrey	
Ramesh, Sridhar	
Ran, Adee	
Regev, Alon	
Reinhard, Michael	
Ren, Hao	
Renteria, Victor	y
Rettig, Thomas	
Rodes, Roberto	
Rosdahl, Jon	
Rush, Joshua	
Sakai, Toshiaki	
Sambasivan, Sam	
Savi, Olindo	
Sawano, Hiroshi	
Schreiner, Stephan	a
Sedarat, Hossein	
She, Qingya	
Shellhammer, Steve	
Shiino, Masato	
Shubochkin, Roman	
Shukla, Priyank	
Sikkink, Mark	
Simms, William	
Sisk, Jason	y
Slavick, Jeff	
Sluyski, Mike	
Sommers, Scott	
Son, Yung Sung	
Sorbara, Massimo	
Souvignier, Tom	
Sprague, Edward	
Stanley, Dorothy	
Stassar, Peter	
Stewart, Heath	
Su, Changzheng	
Sun, Junqing	
Sun, Wensheng	
Sun, Yi	
Takahara, Tomoo	
Takahashi, Satoshi	
Takahashi, Tadashi	
Takayama, Kazuya	

Tazebay, Mehmet	
Theodoras, James	
Thompson, Geoffrey	a
Toyserkani, Pirooz	
Torres, Luis	
Tran, Viet	
Tremblay, David	
Tsujita, Yuichi	
Tsuzaki, Nozomi	
Tu, Mike	
Ulrichs, Ed	
Wang, Haojie	
Wang, Ruoxu	
Wang, Xinyuan	
Watanabe, Yuji	
Weaver, James	
Welch, Brian	
Wendt, Matthias	
Wienckowski, Natalie	
Williams, Tom	
Withey, James	y
Wu, Mau-Lin	
Wu, Peter	
Xu, Dayin	y
Xu, Yu	
Yasui, Hideshi	
Yin, Shuang	
Young, James	
Zhang, Tingting	
Zhong, Qiwen	
Zhuang, Yan	y
Zimmerman, George	a
Zivny, Pavel	
Hormeyer, Bernd	y
Paul, Michael	y
Voss, Bob	y